

# THE UNIVERD STRATES OF AMERICA

TO ALL TO WHOM THESE: PRESENTS SHALL COME:

Pioneer Hi-Bred International, Inc.

ALCCAS, THERE HAS BEEN PRESENTED TO THE

# Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT. THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE THEE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY TEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLEMISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE GHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR ORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT D BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

# SOYBEAN

'92Y90'

In Testimony Marcos, I have hereunto set my hand and caused the seal of the Hunt Haristy Protection Office to be affixed at the City of Washington, D.C. this thirtieth day of July, in the year two thousand and eight.

Allost:

Be-3

Commissioner Plant Variety Protection Office Agricultural Marketing Service command 4. April

Agriculture

~ ,						
REPRODUCE LOCALLY. Include form number and da	te on all reproduc	rtions			Form Approved - OMB No. 0581-0055	
U.S. DEPARTMEN AGRICULTURAL M SCIENCE AND TECHNOLOGY - PL	TOF AGRICULTU ARKETING SERV	JRE ICE	the Paperwork Reduction Act (PRF	i) of 1995.	ce with the Privecy Act of 1974 (5 U.S.C. 552e) and	
APPLICATION FOR PLANT VAR (Instructions and information colle	LETY PROTECTION	ON CERTIFICATE	Application is required in order to de (7 U.S.C. 2421). Information is held	termine if a confidentia	plant variety protection certificate is to be issued I until certificate is issued (7 U.S.C. 2426).	
1. NAME OF OWNER			TEMPORARY DESIGNATION C EXPERIMENTAL NAME	R 3. VA	RIETY NAME	
Pioneer Hi-Bred Internationa	al, Inc.		XB29K07		92Y90	
4. ADDRESS (Street end No., or R.F.D. No., City, S	State, and ZIP Coo	e, and Country)	5. TELEPHONE (include area code		FOR OFFICIAL USE ONLY	
7300 N.W. 62nd Avenue			(515) 253-2197		NUMBER	
P.O. Box 1004			6. FAX (include area code)	Ť	200800085	
Johnston, IA 50131-1004			(515) 253-2288	FILIN	IG DATE	
7. IF THE OWNER NAMED IS NOT A "PERSON". O ORGANIZATION (corporation, partnership, associ	SIVE FORM OF cietion, etc.)	8. IF INCORPORATED, GIVE STATE OF INCORPORATION	9. DATE OF INCORPORATION		1/29/2008	
Corporate		Iowa	May 6, 1926			
10. NAME AND ADDRESS OF OWNER REPRESE	NTATIVE(S) TO S	ERVE IN THIS APPLICATION. (First p	erson listed will receive all papers)	F	FILING AND EXAMINATION FEES:	
Paul D. Koelling		Cassie J. Prochask	a	s	\$ 4387, 50 DATE 1/29/2008	
7300 N.W. 62nd Avenue		7250 N.W. 62nd A	venue	R E C	CERTIFICATION FEE:	
P.O. Box 1004		P.O. Box 552		₽ 6 7 <i>68.0</i> 0		
Johnston, IA 50131-1004		Johnston, IA 501	31-1000	E D	DATE 6/25/2008	
11. TELEPHONE (Include area code)	12. FAX (Includ		13. E-MAIL			
(515) 253-2197	(515)	253-2288 AME (Botanical)	paul.koelling@	pioneel	r.com Transgenes? ( <i>Optional</i> )	
14. CROP KIND (Common Name)		, ,	YES NO		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Soybean  15. GENUS AND SPECIES NAME OF CROP	Fabace	<b>3ae</b> RIETY A FIRST GENERATION HYBRII		IE ASSIGNE	ED USDA-APHIS REFERENCE NUMBER FOR THE ULATE THE GENETICALLY MODIFIED PLANT FOR	
Glycine max	YES	XNO	COMMERICALIZATION			
19. CHECK APPROPRIATE BOX FOR EACH ATTA (Follow instructions on reverse)	CHMENT SUBM	TTED	20. DOES THE OWNER SPE OF CERTIFIED SEED?	CIFY THAT (See Section	SEED OF THIS VARIETY BE SOLD AS A CLASS in 83(a) of the Plant Variety Protection Act)	
a. X Exhibit A. Origin and Breeding History	of the Variety		YES (/f "yes", ans	wer items 2	1 and 22 below) X NO (# "no", go to item 23)	
b. X Exhibit B. Statement of Distinctness			21. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES?			
c. X Exhibit C. Objective Description of Var	iety		YES NO			
d. $X$ Exhibit D. Additional Description of the	Variety (O <i>ptional</i> ,	)	IF YES, WHICH CLASSES? FOUNDATION REGISTERED CERTIFIED  22. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO			
e. X Exhibit E. Statement of the Basis of th		hip	NUMBER OF GENERAT	IONS?		
f. X Exhibit F. Declaration Regarding Depo		har amaga hel veriation varčination	YES N		A -t- FOD FACIL OLAGO	
that tissue culture will be deposited and	i maintained in an	approved public repository)			,3, etc. FOR EACH CLASS.	
g. X Filing and Examination Fee (\$4,382), n States" (Meil to the Plant Variety Protect	nade payable to "T ction Office)	reasurer of the United	(If additional explanation		, please use the space indicated on the reverse.)	
23. HAS THE VARIETY (INCLUDING ANY HARVE FROM THIS VARIETY BEEN SOLD, DISPOSEI OTHER COUNTRIES?			24. IS THE VARIETY OR AN INTELLECTUAL PROPE	Y COMPON RTY RIGHT	ENT OF THE VARIETY PROTECTED BY " (PLANT BREEDER'S RIGHT OR PATENT)?	
YES V NO			YES	NO		
IF YES, YOU MUST PROVIDE THE DATE OF FOR EACH COUNTRY AND THE CIRCUMSTA			IF YES, PLEASE GIVE CORFERENCE NUMBER.	OUNTRY, D. <i>(Please us</i> e	ATE OF FILING OR ISSUANCE AND ASSIGNED space indicated on reverse.)	
25. The owners declare that a viable sample of bas for a tuber propagated variety a tissue culture to	will be deposited in	a public repository and maintained to	r the duration of the certificate.			
entitled to protection under the provisions of Sec	tion 42 of the Plan	t Variety Protection Act.		v, distinct, u	niform, and stable as required in Section 42, and is	
Owner(s) is (are) informed that false represents	ation herein can je		ies. SIGNATURE OF OWNER			
SIGNATURE OF OWNER		1 -	PICHALOKE OF CAMPER			

NAME (Please print or type)

CAPACITY OR TITLE

(See reverse for instructions and information collection burden statement)

DATE

Paul D. Koelling

Process Improvement Manager

CAPACITY OR TITLE

GENERAL INSTRUCTIONS: To be effectively filed with the Plant Variety Protection Office (PVPO), ALL of the following items must be received in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E, F; (3) for a tuber reproduced variety, verification that a viable (in the sense that it will reproduce an entire plant) tissue culture will be deposited and maintained in an approved public repository; and (4) payment by credit card or check drawn on a U.S. bank for \$4,382 (\$518 filing fee and \$3,864 examination fee), payable to "Treasurer of the United States" (See Section 97.6 of the Regulations and Rules of Practice). NEW: With the application for a seed reproduced variety or by direct deposit soon after filing, the applicant must provide at least 3,000 viable untreated seeds of the variety per se, and for a hybrid variety at least 3,000 untreated seeds of each line necessary to reproduce the variety. Partial applications will be held in the PVPO for not more than 90 days; then returned to the applicant as un-filed. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initiated and dated. DO NOT use masking materials to make corrections. If a certificate is allowed, you will be requested to send a payment by credit card or check payable to "Treasurer of the United States" in the amount of \$768 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

**NOTES:** It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. The fees for filing a change of address; owner's representative; ownership or assignment; or any modification of owner's name is specified in Section 97.175 of the regulations. (See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)

**Plant Variety Protection Office** 

General E-mail: PVPOmail@usda.gov

Homepage: http://www.ams.usda.gov/science/pvpo/PVPindex.htm

#### SPECIFIC INSTRUCTIONS:

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority and provide evidence that the permanent name of the application variety (even if it is a parental, inbred line) has been cleared by the appropriate recognized authority before the Certificate of Protection is issued. For example, for agricultural and vegetable crops, contact: U.S. Department of Agriculture, Agricultural Marketing Service, Livestock and Seed Programs, Seed Regulatory and Testing Branch, 801 Summit Crossing Place, Suite C, Gastonia, North Carolina 28054-2193 Telephone: (704) 810-8870. http://www.ams.usda.gov/isg/seed.htm.

#### ITEM

19a. Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;

(2) the details of subsequent stages of selection and multiplication;

(3) evidence of uniformity and stability; and

- (4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified
- 19b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:
  - (1) identify these varieties and state all differences objectively;
  - (2) attach replicated statistical data for characters expressed numerically and demonstrate that these are clear differences; and
  - (3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.
- 19c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 19d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 19e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
- 20. If "Yes" is specified (seed of this variety be sold by variety name only, as a class of certified seed), the applicant MAY NOT reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (See Regulations and Rules of Practice, Section 97.103).
- 23. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
- 24. See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.
- 22. CONTINUED FROM FRONT (Please provide a statement as to the limitation and sequence of generations that may be certified.)
- 23. CONTINUED FROM FRONT (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)
- 24. CONTINUED FROM FRONT (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)
  U.S. Patent 4,940,835 issued to Shah et al. as per the Roundup Ready Gene in this variety; One or more of U.S. Patents numbered 5,710,369 and 5,534,425 issued to Fehr and Hammond, as per the genetics and modified oil composition resulting in reduced linolenic acid (18:3) content in this variety.

  According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to everage 1.4 hours per response, including the time for reviewing instructions, searching existing date sources, gathering and meintaining the data needed, and completing and reviewing the collection of information.

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# Exhibit A. Origin and Breeding History of the Variety

Soybean Variety 92Y90

Variety 92Y90 evolved from a cross made in the summer of 2001 in lowa with the following parentage:

Parentage = IA2064/93B36\*

\*93B36 is a commercial variety with the Roundup Ready® (40-3-2) gene

Variety 92Y90 is an F3-derived line which was advanced to the F3 generation by modified single-seed descent. The F3 progeny row of 92Y90 was grown in a plant row yield trial in lowa during the summer of 2003. Subsequently, 92Y90 has undergone four years of extensive testing and purification and has been observed by the breeder to be uniform and stable for all plant traits from generation to generation, with no evidence of variants. On the basis of yield, low linolenic oil content, Phytophthora resistance, brown steam rot resistance, frogeye leaf spot tolerance, and resistance to Roundup® branded herbicides; variety 92Y90 was assigned a commercial number.

The purification block was grown in the summer of 2005 in Iowa and 22 sub-lines were harvested. A half (0.50) acre increase was grown in Chile in 2005/2006. Twenty-one (21) acres of parent seed stock (foundation seed equivalent) were grown in the summer of 2006. Approximately 703 acres of seed stock and production seed were grown in the summer of 2007.

# **Exhibit B. Statement of Distinctness**

Soybean Variety 92Y90

Variety 92Y90 is most similar to Pioneer variety 92M91. Both varieties have purple flowers, light tawny pubescence, yellow seed with black hila, brown pod wall, resistance to *Phytophthora megasperma* as governed by Rps1k, and resistance to Roundup® branded herbicides. However 92Y90 has 3% or less linolenic oil content; whereas 92M91 has normal linolenic oil content.

Variety	Statistic	% Linolenic Oil (R183)
92Y90	Mean1	2.3
92M91	Mean2	6.8
	#Locs	16
	#Reps	20
	#Years	2
	%Wins*	100
	Diff	4.5
	Tvalue	42.1
	SE Diff	0.11
	Prob	0

<sup>\*%</sup> wins = percent of times the trait was recorded as the highest number or lowest number depending on the desirability of the trait. (0 or 100 indicates no reversals)

Variety 92Y90 is also similar to Pioneer variety 93Y01. Both varieties have purple flowers, light tawny pubescence, yellow seed with black hila, brown pod wall, 3% or less linolenic oil content, and resistance to Roundup® branded herbicides. However, 92Y90 has resistance to *Phytophthora megasperma* as governed by Rps1k; whereas 93Y01 has no major gene for resistance to *Phytophthora megasperma* 

Expt Name	Year	<b>Location Name</b>	Variety1	Mean1	Variety2	Mean2	Diff
DPB922GY	2005	LPPCRG	92Y90	2.5	92M91	6.9	4.4
DPB922GY	2005	NPALBG	92Y90	2.5	92M91	6.8	4.3
DPB922GY	2005	NPBELG	92Y90	2.1	92M91	6.7	4.6
DPB922GY	2005	NPBELG	92Y90	2.3	92M91	7.2	4.9
DPB922GY	2005	NPHAMG	92Y90	2.3	92M91	6.5	4.2
DPB922GY	2005	NPMING	92Y90	2.3	92M91	6.2	3.9
DPB922GY	2005	NPNAPG	92Y90	2.3	92M91	6.7	4.4
DPB922GY	2005	NPWEBG	92Y90	2.5	92M91	7.1	4.6
DPB922GY	2005	PECARG	92Y90	2.2	92M91	6.5	4.3
DPB922GY	2005	PEDACG	92Y90	2.4	92M91	6.3	3.9
DPB922GY	2005	PEPOCG	92Y90	2.4	92M91	7.0	4.6
DPB922GY	2005	PESTUG	92Y90	2.4	92M91	6.7	4.3
DPB301GL	2006	NPALBG	92Y90	2.2	92M91	6.9	4.7
DPB301GL	2006	NPALBG	92Y90	2.3	92M91	7.4	5.1
DPB301GL	2006	NPBELG	92Y90	2.1	92M91	6.8	4.7
DPB301GL	2006	NPBELG	92Y90	2.4	92M91	7.5	5.1
DPB301GL	2006	NPHAMG	92Y90	2.0	92M91	7.6	5.6
DPB301GL	2006	NPMARG	92Y90	2.3	92M91	6.5	4.2
DPB301GL	2006	NPMARG	92Y90	2.6	92M91	6.6	4
DPB301GL	2006	PEFREG	92Y90	2.5	92M91	7.0	4.5
	ngala se sekala	Means	te en desarbes e pris	2.330	a telepaten artik	6.845	4.515

Form Approved OMB NO 0581-0055

According to the Paperwork Reduction Act of 1995, an egency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0056. The time required to complete this information collection is estimated to average 1.4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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### U.S. DEPARTMENT OF AGRICULTURE

EXHIBIT

**AGRICULTURAL MARKETING SERVICE** SCIENCE AND TECHNOLOGY PLANT VARIETY PROTECTION OFFICE BELTSVILLE, MD 20705

**OBJECTIVE DESCRIPTION OF VARIETY** Soybean (Glycine max (L.) Merr.)

NAME OF APPLICANT (S)	TEMPORARY OR EXPERIMENTAL DESIGNATION	VARIETY NAME
Pioneer Hi-Bred International, Inc.	XB29K07	92Y90
ADDRESS (Street and No. or RD No., City, State, Zip Code, and Country, 7300 N.W. 62nd Avenue, P.O. Box 1004, Joh		FOR OFFICIAL USE ONLY  PYP NUMBER  # 2 0 0 0 0 0 0 5
PLEASE READ ALL INSTRUCTIONS CAREFULLY:  Place the appropriate number that describes the varietal Place a zero in the first box (e.g., 0 9 9 or 0 9 should be based on a minimum of 100 plants. Compared any recognized color standard may be used to determine all questions for your variety; lack of response may delay	) when number is either 99 or less or 9 or less respectitive data should be determined from varieties entered in a plant colors; designate system used	
A. MORPHOLOGY:  Seed Shape:  2 1 = Spherical (LW, L/T, and T/W ratios ≤1.2)	2 = Spherical-Flattened (L/W ratios> 1.2; L/T ratios ≤ 1.2	
3 = Elongate (L/W ratios > 1.2; T/W ratios ≤ 1.2)	4 = Elongate-Flattened (L/T ratios ≥ 1.2; L/W ratios ≥ 1.2	
Seed Coat Color:  * 1 1 = Yellow 2 = Green 3 = Br  Seed Coat Luster:  1 1 = Dull 2 = Shiny	rown 4 = Black 5 = Other (Please spe	ecify)
Seed Size:  * 15.3 grams/100 seeds (rounded to	the nearest decimal (00.0))	
Hilum Color:  * 6 1 = Buff 2 = Yellow 3 = Brown   7 = Other (Please specify)	own 4 = Gray 5 = Imperfect Black	6 = Black

# A. MORPHOLOGY: (continued)

Cotyledon Color:

Seed Protein Peroxidase Activity:

$$2 = High$$

Hypocotyl Color:

\* 3 1 = Green

2 = Green with Bronze ('Evans' or 'Davis') Band below cotyledons ('Woodworth' or 'Tracy') 3 = Light Purple below Cotyledons

4 = Dark Purple extending to unifoliolate leaves ('Hodgson', ('Beeson' or 'Pickett 71') 'Coker', or 'Hampton 266A')

Leaf Shape:

Flower Color:

Pod Color:

Pubescence Color:

Plant Habit:

Maturity Group:

Maturity Subgroup:

Please enter a value from 0-9

# B. DISEASE REACTIONS: 0 = Not Tested

NOTE: Failure to supply information for at least 5 of the following disease reactions will result in significant delay in the examination process. Items denoted by and asterisk are the disease reactions most useful in the examination process.

## Bacterial

- 0 Bacterial Pustule (Xanthomonas campestris pv. glycines (Nakano) Dye)
- Bacterial Blight (Pseudomonas syringae pv. glycinea (Coerper) Young, Dye, & Wilkie)
- Wildfire Blight (Pseudomonas syringae pv. tabaci (Wolf & Foster) Young, Dye, & Wilkie)

## Fungal

- 1 Brown Spot (Septoria glycines Hemmi)
- 2 Frogeye Leaf Spot (Cercospora sojina Hara)
- 0 race 1
- гасе 3
- 0 race 5
- race 7

- race 2 race 4 0
- race 6
- Important: Any other races tested (Please specify)

В.	DISEA	<b>ISE</b>	REAC1	TIONS:	(continued)
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	0	Target Spot (	(Cor	rynespora cass	siicol	a (Berk. & Cu	rt.) V	Vei)					
	0	Downy Milde	w (F	Peronspora trif	olion	um var. mancı	hurio	a (Naum.) Syd	i. Ex	(Gäum)			
	0	1	-	(Microsphaera						•			
	2	Brown Stem	Rot	` (Phialophora (	areg:	ata (Allington	& Ct	namberlain) W.	Gai	ms.)			
*	0	1		, ,	-	• •		•		Athow & Caldy	vell)		
*	1	1	-			•	-			ojae (Lehman)		nm.)	
	0	Ī		in ( <i>Cercospora</i>		•		, ,				•	
	1	1		t Rot ( <i>Rhizoct</i> o		·				•			
	0	i		-		•	w. (a	a.k.a. <i>Phakosp</i>	ora.	pachyrhizia Sy	dw.)	)	
	0	)		se specify)	·	,	•	•	•		•	•	
'no		the gene(s) co			o Dh	utanhthara Pr	oot E	Pot					
νpe		Rps1	0	7	2	Rps1-k		Rps3-b		Rps5	0 F	?ns?	
	U	(Williams)	U	(Arksoy)		(Kingwa)	0	(Pl 172.901)	U	(PI 91.160)	) رق	Nezumisaya, OX939, OX	(940)
	0	Rps1-a (Mukden)	0	R <i>ps1-d</i> (Pl 103.091)	0	Rps2 (CNS)	0	<i>Rps3-c</i> (Pl 340.046)	0	Rps6 (Altona)			
	0	Rps1-b (Sanga)	0	<i>Rps1-e</i> (Pl 172.907)	0	<i>Rps3-a</i> (Pl 171.442)	0	<i>Rps4</i> (Pl 86.050)	0	Rps7 (Harosoy)			
Ph	vtop	hthora Root R	ot (	Phytophthora :	soiae	e (Kaufmann 8	≩ Ge	rdemann))					
•	0	race 1	0	race 9	0	race 17	0	race 25	0	race 32	0	race 39	
		race 2	0	race 10	0	race 18	0	race 26	0	race 33	0	race 40	
	_	race 3	=	race 11	0	race 19	0	race 27	0	race 34	0	race 41	
		race 4	0	race 12		race 20	0	race 28	0	race 35	0	race 42	
		race 5	0	race 13	0	race 21	0	race 29	0	race 36	0	race 43	
		race 6	0	race 14	0	race 22	0	race 30	0	race 37	0	race 44	
		race 7	0	race 15	=	race 23	0	race 31	0	race 38	0	race 45	
			=	1	0	race 24	0		ست	her races teste		Please specify)	
		1											
		Bud Blight (To		= •									
_	1		-	ean Yellow Mo		•							
*		•	•	Cowpea Chlor		Virus)							
		•		Pod Mottle Vi									
*	1	Seed Mottle (	Soy	bean Mosaic \	/irus	)							
Ve	mate	ode											
3oy	/bea	an Cyst Nemat	ode	e (Heterodera g	glycii	nes Ichinohe)							
*	0	race 1	) ra	ace 4 0	rac	e 9							
Ì	n	race 2	) ra	ace 5	race	a 1 <i>4</i>							

0 Important: Any other races tested (Please specify)

B.	DISEASE REACTIONS: (continued)	
	D Lance Nematode ( <i>Hoplolaimus columbus</i> Sher)	
	Southern Root Knot Nematode ( <i>Meliodogyne incognita</i> (Kofoid & White) Chitwood)	
ĺ	Northern Root Knot Nematode ( <i>Meliodogyne hapla</i> Chitwood)	
	Peanut Root Knot Nematode ( <i>Meliodogyne arenaria</i> (Neal) Chitwood)	
	Reniform Nematode ( <i>Rotylenchus reniformus</i> Linwood & Olivera)	
	Javanese Nematode ( <i>Meliodogyne javanica</i> (Treub) Chitwood)	
[	Important: Other Nematodes tested (Please specify)	
		_
C.	PHYSIOLOGICAL RESPONSES: 0 = Not Tested 1 = Susceptible 2 = Resistant 3 = Tolerant	
	1 Iron Chlorosis on Calcareous Soil	
	0 Phosphorus 0 Important: Other (Please specify)	
• [	0 Boron	
. [	0 Aluminum	
j	Salt	
[	0 Drought	
L		
D.	<b>INSECT REACTIONS</b> : 0 = Not Tested 1 = Susceptible 2 = Resistant 3 = Tolerant	
ĺ	Mexican Bean Beetle ( <i>Epilachna varivestis</i> Mulsant)	
Ī	2 Soybean Aphid ( <i>Aphis glycines</i> Matsamura)	
Ī	Potato Leaf Hopper ( <i>Empo</i> asca fabae (Harris))	
Ė	0 Important: Other (Please specify)	
		_
Ε.	HERBICIDE REACTIONS: 0 = Not Tested 1 = Susceptible 2 = Resistant 3 = Tolerant	
	0 Metribuzin	
	0 Bentazone	
	Sulfonylurea	
*	2 Glyphosate	
	1 Glufosinate	
	Pendimethalin	
	<del>-</del>	
	mportant: Other (Please specify)	

F.	TR	ΔN	SG	FNIC	COME	POSI'	TION:

Has the development of the subject variety	included the insertion of	genetic material from an	organism other than	a soybean
or, the removal of genetic material from the	application variety?			

- 1. Please state the vector's name:
- 2. Please state the vector components:
- 3. Please describe the genetic material successfully transferred into the subject variety:
- 4. Please describe the insertion protocol:
- \* A literature citation(s) explaining the four information requests above may be an acceptable alternative to completion of the "Transgenic Composition" portion of this form.

# G. BIOCHEMICAL MARKERS:

Please describe any additional genetic and/or biochemical information which you believe will be helpful in further describing the subject variety here (e.g., Single Nucleotide Polymorphisms (SNPs), Simple Sequence Repeats (SSRs), Restriction Fragment Length Polymorphisms (RFLPs), Isozyme characterization, etc.). Use additional pages if necessary.

# H. STATISTICAL DATA FOR APPLICATION AND CITED MOST SIMILAR VARIETIES:

Please provide paired comparison data and appropriate statistical test (e.g. LSD. Std. error, ANOVA, Mann-Whitney *U*-test or Kruskal-Wallis Test, etc.) value (95 or > probability level).

Variety	No. of days Maturity	Plant height (cm)	% Linoleic acid	% Oleic acid	% Linolenic acid	% Other fatty acids (specify)	% Total oil	% Protein (Plant dried down to%)
Application Variety Year/Location 1								
Year/Location 2								
Cited Most Similar Variety Year/Location 1								
Year/Location 2 LSD .05	·							

# I. COMMENTS:

### Number 1:

The Transgenic Composition section is fully addressed in the following publication. Specific details of this vector components and insert elements are summarized in Figure 1 and Table 1 on page 1453. Padgett, S.R. et al. Development, Identification, and Characterization of a Glyphosate-Tolerant Soybean Line. 1995. Crop Science. 35:1451-1461.

# Number 2:

92Y90 is rated as resistant to Frogeye Leaf Spot. On a scale of one to nine with one being fully susceptible, and nine being complete resistance; 92Y90 is rated nine.

# Number 3:

92Y90 is rated as resistant to Brown Stem Rot. On a scale of one to nine with one being fully susceptible, and nine being complete resistance; 92Y90 is rated eight.

# Number 2:

92Y90 is rated as having antibiosis resistance to soybean aphids\*. On a scale of one to nine with one being susceptible, and nine being resistance; 92Y90 is rated seven.

\*Antibiosis is measured using a growth chamber screening technique that compares the rate of aphid reproduction on different varieties. Antibiosis resistance reduces the rate of growth, survival and reproduction of soybean aphids that feed on soybean plants.

# **Exhibit D.** Additional Description of the Variety

Soybean Variety 92Y90

In Exhibit C we have identified variety 92Y90 as susceptible to bacterial blight, brown spot, pod and stem blight, rhizoctonia root rot, bud blight, yellow mosaic, cowpea mosaic, pod mottle and seed mottle.

This does not mean that variety 92Y90 is any worse for these problems than other varieties of similar maturity. Rather, we do not consider 92Y90 to be immune to these problems. Therefore, we have chosen to be conservative and have identified the line as "susceptible".

Variety 92Y90 is a late Group 2 variety. If Group 2 varieties are divided into tenths, the relative maturity of 92Y90 is 2.9.

REPRODUCE LOCALLY. Include form number and edition date on al	I reproductions.	ORM APPROVED - OMB No. 0581-0055
U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE  EXHIBIT E	Application is required in order to dete certificate is to be issued (7 U.S.C. 24 confidential until the certificate is issue	(21). The information is held
STATEMENT OF THE BASIS OF OWNERSHIP	O TEMPODATION	A MADIETY MANE
1. NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER	3. VARIETY NAME
Pioneer Hi-Bred International, Inc.	XB29K07	92Y90
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country)	5. TELEPHONE (Include area code)	6. FAX (Include area code)
7300 N.W. 62nd Avenue	(515) 253-2197	(515) 253-2288
P.O. Box 1004	7. PVPO NUMBER	
Johnston, IA 50131-1004	#200800	0 6 5
8. Does the applicant own all rights to the variety? Mark an "X" in th	e appropriate block. If no, please explai	in. YES NO
9. Is the applicant (individual or company) a U.S. national or a U.S. b	pased company? If no, give name of co	ountry. 🗸 YES 📄 NO
· · · · · · · · · · · · · · · · · · ·	, , , , ,	- 6
10. Is the applicant the original owner?    YES	NO If no, please answer one	of the following:
a. If the original rights to variety were owned by individual(s), is	(are) the original owner(s) a U.S. Nations  ✓ NO If no, give name of count	• •
b. If the original rights to variety were owned by a company(ies)	), is (are) the original owner(s) a U.S. bas	
11. Additional explanation on ownership (Trace ownership from origi	inal breeder to current owner. Use the re	everse for extra space if needed):
PLEASE NOTE:		
Plant variety protection can only be afforded to the owners (not license)	sees) who meet the following criteria:	
If the rights to the variety are owned by the original breeder, that p national of a country which affords similar protection to nationals of a country which affords similar protection to nationals of the country which affords similar protection to nationals of the country which affords similar protection to nationals of the country which affords are considered.		
<ol><li>If the rights to the variety are owned by the company which emplo nationals of a UPOV member country, or owned by nationals of a genus and species.</li></ol>		
3. If the applicant is an owner who is not the original owner, both the	original owner and the applicant must m	eet one of the above criteria.
The original breeder/owner may be the individual or company who di Act for definitions.	irected the final breeding. See Section 4	1(a)(2) of the Plant Variety Protection
According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor,	, and e person is not required to respond to e collectio	n of information unless it displays a valid OMB

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and e person is not required to respond to e collection or information unless it displays a valid UMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to everage 0.1 hour per response, including the time for reviewing the instructions, searching existing date sources, gethering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, sexual orientation, marital or family status, political beliefs, perental status, or protected genetic information. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Weshington, D.C. 20250-9410 or cell (202) 720-5964 (voice and TDD). USDA is an equal opportunity provide and employer.

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According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 6 minutes per response, including the time for reviewing instructions, searching existing date sources, gathering and maintaining the date needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, sexual orientation, marital or family status, political beliefs, parental status, or protected genetic information. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, eudictape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964 (voice and TDD) USDA is an equal opportunity provider and employer.

### U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE SCIENCE AND TECHNOLOGY PLANT VARIETY PROTECTION OFFICE BELTSVILLE, MD 20705

# EXHIBIT F DECLARATION REGARDING DEPOSIT

NAME OF OWNER (S) Pioneer Hi-Bred International, Inc.	ADDRESS (Street and No. or RD No., City, State, and Zip Code and Country) 7300 N.W. 62nd Avenue P.O. Box 1004	TEMPORARY OR EXPERIMENTAL DESIGNATION XB29K07			
	Johnston, IA 50131-1004	92 <b>Y</b> 90			
NAME OF OWNER REPRESENTATIVE (S)	ADDRESS (Street and No. or RD No., City, State, and Zip Code and Country)	FOR OFFICIAL USE ONLY			
Paul D. Koelling	7300 N.W. 62nd Avenue P.O. Box 1004	PVPO NUMBER			
Cassie J. Prochaska	Johnston, IA 50131-1004	#2000800085			

I do hereby declare that during the life of the certificate a viable sample of propagating material of the subject variety will be deposited, and replenished as needed periodically, in a public repository in the United States in accordance with the regulations established by the Plant Variety Protection Office.

Paul D. Noelling Signature

January 25, 2008